

1_Transforming built heritage and landscapes

In support of global integrated landscape initiatives: Experiences from the Green Heart in the Netherlands

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Abstract. Spatial planning is seen as an important instrument that could support the integrated landscape management (ILM) process. This paper presents the insights derived from important moments in spatial planning history, in the Netherlands, signifying that spatial planning consists of dynamic processes that anticipate and adapt to changes in society. The Green Heart is taken as an example of an integrated planning approach on a regional scale, which is appropriate for integrated landscape management (ILM). During the last 30 years since spatial planning in the Netherlands shifted from sectoral to integral, the role of the national government changed from blueprint planning to stimulating and facilitating planning processes of regional and local authorities. This has provided opportunities for multi-stakeholder platforms to effectively contribute to the spatial planning process. This paper elaborates positive and negative effects of those changes, providing insights in the form of lessons learned, which can be useful for planning processes of integrated landscape initiatives around the globe.

Key words: Landscape planning, integrated landscape management, Green Heart, Netherlands

1 Introduction

Integrated landscape management (ILM) is the process by which managers and stakeholders can plan, implement and monitor actions to support their objectives, including the Sustainable Development Goals (SDGs), on a workable scale. In ILM terms, a landscape is a socio-ecological system that is organised around a distinct ecological, historical, economic and socio-cultural identity (Denier, et al., 2015). Here, we therefore consider a landscape to be a manageable unit on a sub-national scale, such as a province, watershed or economic growth corridor, as on such a spatial scale, the SDGs can be integrated (Thaxton, et al., 2015). Hence, in the ILM approach, the word ‘landscape’ is used to describe a group of stakeholders or a partnership within a certain area — which is very different from what the term ‘landscape’ means in spatial planning.

ILM is suitable for situations of strong interaction between and interdependencies around natural resource use and management. This type of management is often initiated by nature and biodiversity protection organisations; which is why conservation, sustainable resource management, socio-economic development and restoration are integral parts of the ILM framework.

By focusing on multi-stakeholder partnerships, ILM also provides an effective form of collaboration and supports inclusive planning in cases where government capacity is underdeveloped, such as in developing countries. In most such cases, government policies alone cannot resolve trade-offs or mobilise synergies between goals. Stakeholders need to be directly involved in negotiations and commit to incorporating collaboratively agreed strategies and objectives into their own businesses and



programmes (Ros-Tonen et al., 2018). In a landscape approach, stakeholders thus aim to reconcile competing social, economic and environmental objectives.

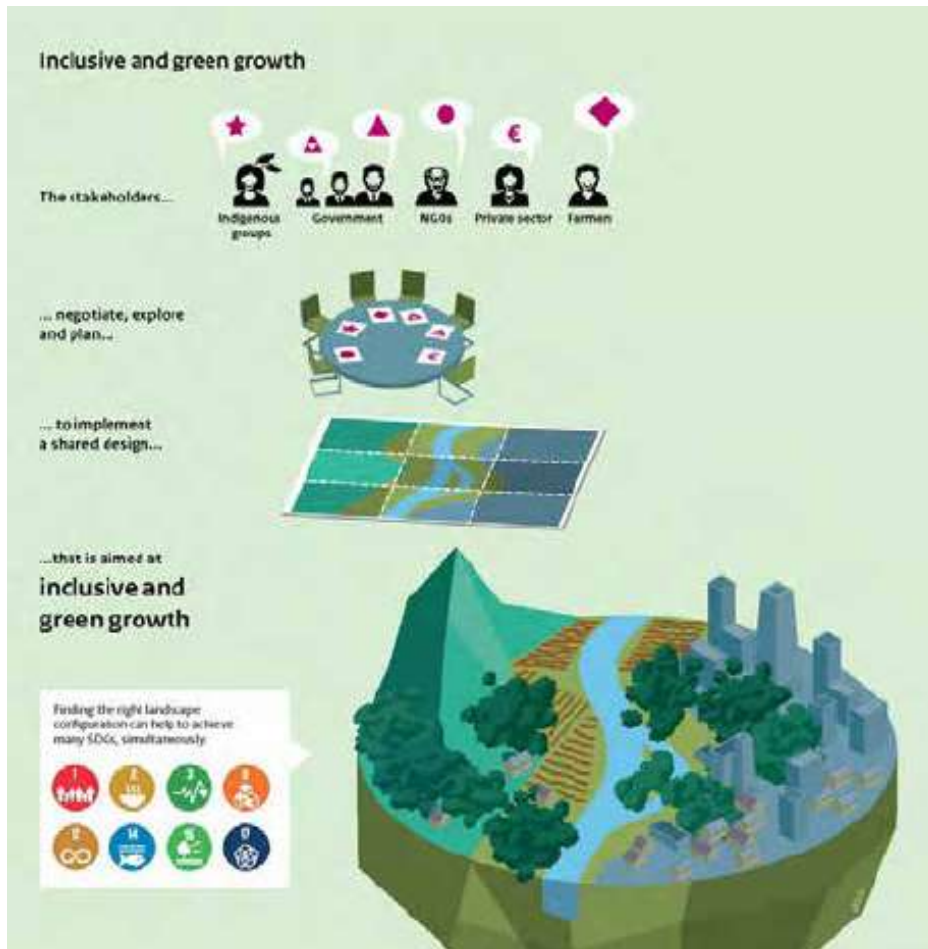


Figure 1. Inclusive green growth aims to achieve multiple sustainable development goals, simultaneously, by finding shared solutions on a landscape level (adapted from People and the Earth, PBL 2017).

Over the past two years, the Dutch Ministry of Foreign Affairs supported a project connected to landscape initiatives in Honduras, Ghana and Tanzania, in which PBL Netherlands Environmental Assessment Agency and EcoAgriculture Partners collaborated. The objective of the overall project was twofold:

- 1) to develop, apply and assess the use of spatially explicit modelling and scenario tools to help stakeholders in integrated landscape initiatives explore strategies aimed at achieving multiple SDGs;
- 2) to learn from the spatial planning experience in the Netherlands and related positive effects that can be achieved within ILM landscape initiatives.

This paper focuses on the second aim. We studied spatial planning in Netherlands using literature, map analyses and interviews. We zoomed in on the case of the Green Heart, because of its unique identity and location in the central part of the Netherlands, overlapping three provinces. This sub-national scale is well-suited for ILM studies, because it allows for stakeholders to more clearly understand the shared interests and impact of specific actions.

1.1 The Green Heart in brief

The Green Heart consists of a predominantly rural area between the four largest cities of the Netherlands (Amsterdam, The Hague, Rotterdam and Utrecht) that form a ring-shaped metropolis called the Randstad. To be clear, neither the Randstad nor the Green Heart are geographical names; therefore, they are usually not indicated on a map of the Netherlands. Both are concepts invented by planners.

Although the Netherlands is one of the most densely populated countries in the world, compared with other metropolises around the globe, Dutch cities are rather small (its capital, Amsterdam, roughly has 880.000 inhabitants). The Randstad concept, therefore, in addition to the spatial dimension, also — and much more importantly — has an economic element. By combining the populations and economic forces of the four cities and presenting the region as one large ‘city’, the government hoped to be giving the Randstad a prominent place on the map of Europe and make it economically competitive with other European regions.

The Green Heart was seen as an important contribution to quality of living in the densely populated urban part of the Randstad. In addition to its agricultural function, the Green Heart was also seen as a place of recreation for the Randstad’s inhabitants and of conservation of the green open space that is so characteristic of the Dutch polder landscape.



Figure 2. Impressions of the landscape of the Green Heart.

Source: PBL (upper and lower left); Natuurmonumenten, Ferry Siemensma (lower right)

The Green Heart covers an area of roughly 1,800 km². It is surrounded by the metropolitan areas of Amsterdam (to the north), The Hague (to the west), Rotterdam (to the south) and Utrecht (to the east). In January 2015, 726,541 people resided in one of the 40 Green Heart municipalities, which is a tenth of those living in the metropolitan part of the Randstad area. Today, the agricultural sector uses around

67% of the Green Heart's land area, with its revenues mainly coming from the production of dairy, forest plantations and horticultural products, the last mainly concentrated in and around the city of Boskoop. Ten per cent of the income of people in the Green Heart is being earned in such primary agriculture (Rabobank 2012). The proximity of Amsterdam Airport Schiphol and the Port of Rotterdam, in addition to processing and marketing centres as well as good road and rail infrastructure provide very favourable conditions for agricultural exports.

The Green Heart, similar to the rest of the Netherlands, is a man-made cultural landscape, mostly consisting of polders, below sea level (Figure 2). Seen from the air, it looks like a patchwork of pastures, interwoven with larger and smaller waterways and scattered small cities and villages. On closer inspection, it shows heterogeneity, made up of very different relatively old landscape types, the oldest of which dating back to medieval times (around AD 1100). The Green Heart is still rich in elements of cultural heritage. Especially in peat cultivation areas and along levees, where historical settlements are abundant, we can still find hundreds of well-preserved historical farmhouses. Windmills, sometimes grouped in clusters of three or more, arguably make up the most striking landmarks in the Green Heart, all of which have lost their original function as windpumps. In spite of urban developments in some of the areas over the past years, the Green Heart still looks like the archetypal Dutch landscape, calling to mind the landscape paintings by the old masters, such as Ruysdael and Van Goyen.

2 Spatial planning styles and the Green Heart

Spatial planning in the Netherlands has a long history and has undergone many transformations. In the years after the Second World War, planning involved a top-down, hierarchical perspective, with a focus on government-led land-use planning. This form of planning, which uses prohibitions, is called development control planning, with an emphasis on control (Van der Valk, 2010). Spatial plans of that period were considered blueprints. Most government authorities in the Netherlands, at that time, were organised according to individual sectors (e.g., agriculture, environment, rural development and water) and jurisdictions.

By the end of the 1980s, it was clear that the traditional practice of national government-led land-use planning no longer suited the forces of a fluid and mobile society. The national government, therefore, developed a more flexible development planning style (*onwikkelingsplanologie*). This planning style, although still containing many elements of hierarchical governance, was taking into account the dynamics within society, local implementation, attention for economics, citizen participation, more attention for concrete projects than for abstract plans, and the collaboration between public and private actors (Van der Valk, 2010).

During the 1990s, the role of provinces in policy-making and planning projects increased due to the decentralisation of responsibilities and tasks from the national to provincial government levels. The provinces started acting as mediators between national policy design and local policy implementation and gained a permanent role in planning projects crossing municipal borders. Provinces were actively involved in integrated planning processes, including strategic acquisition of land and high-risk investments in development projects (Van Straalen et al., 2015). Integration was expressed as the main objective, in order to guarantee the success of projects. But, as a result of economic setbacks at the beginning of the millennium, many of these projects have come to a standstill, mainly due to their large-scale, time-consuming, risky, and therefore costly character.

In 2006, the new National Policy Document on Spatial Planning (Nota Ruimte, 2006) was collaboratively published by four ministries and included the concept of integration as an objective of the national government (Ministry of Housing, Spatial Planning and the Environment, 2006). To

implement this objective, ‘integral spatial development’ was introduced as a new planning concept. The integral spatial development had to address several planning issues, including integration, transparency, openness, and participation (Louw et al., 2003; Boelens and Spit, 2006). Citizens, NGOs and market parties became increasingly involved in the planning processes, which gradually led to the practice of network-based governance.

The following sections show how these changes in spatial planning policy affected the Green Heart area.

2.1 Green Heart during the hierarchical planning period

It was during this period of spatial planning that the Green Heart was announced as an iconic Dutch landscape. Since the emergence of the concept of the Green Heart, policymakers, especially those at the former Ministry of Housing, Spatial Planning and the Environment (VROM), were eager to protect the area as a green open space for agriculture and recreation and prevent its further urbanisation. In 1999, the ministry published a report on the development programme for the national landscape of the Green Heart (*Ontwikkelingsprogramma nationaal landschap Groene Hart*), which painted an idyllic future for the Green Heart, where agriculture, nature, recreation and culture were in harmony and reinforcing each other. This political intention was repeated in the Fifth National Policy Document on Spatial Planning (*Vijfde Nota Ruimtelijke Ordening*, 2002). Gradually, the value of the Green Heart became broadly accepted in the society. In 2005, the Council for the Rural Area (*De Raad voor het Landelijk Gebied*), an advisory body of the government, placed the Green Heart along with eight other areas in the premier league of nationally important landscapes because of its rarity and importance for the national identity.

Over the course of time, economic development inevitably led to urban expansion, and threatened to fragment the Green Heart. To prevent this from happening, a series of national policies would lead to a seemingly vague limitation on the area allocated for urbanisation. But because of the large demand and scarcity of land for urban and economic expansion, it took years before the boundaries of the Green Heart were firmly delineated.

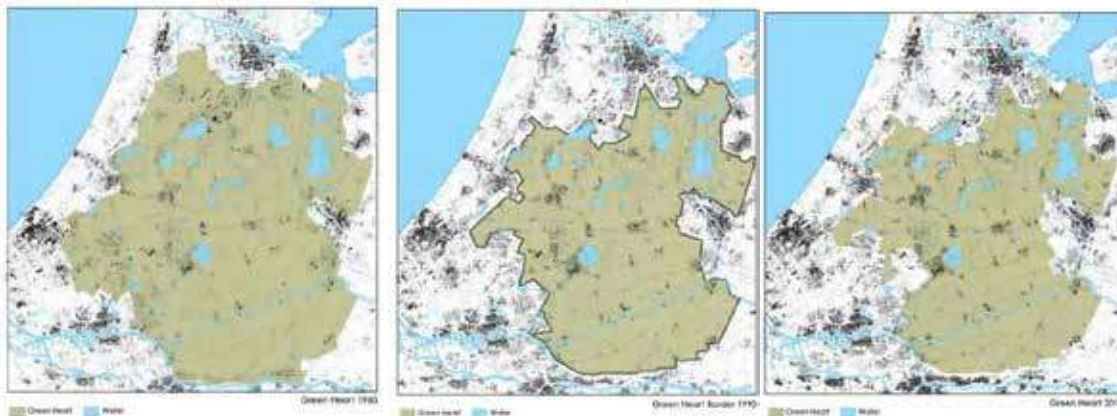


Figure 3. Changing boundaries of the Green Heart: a) indicative boundary; b) delineated boundary in 1990; c) indicative boundary 2017.

The boundaries of the Green Heart (Figure 3) were defined for the first time in 1990, in the Supplement to the Fourth National Policy Document on Spatial Planning (*Vierde Nota over de Ruimtelijke Ordening Extra, Vinex*), and elaborated in the National Structure Plan for Green Areas (*Structuurschema Groene Ruimte*), in 1992 (Kooij, 2010).

With the intention to maintain the openness of the Green Heart, the official Dutch policy, at the time, was threefold: (1) impose restrictions on residential and industrial development within the area; (2) provide alternative space for development in new towns and urban expansion outside the region; (3) improve the quality of landscape and nature within the area itself. For many decades, this combined policy strategy, in which restrictions were combined with development measures, was a successful approach for this vulnerable area. Over the course of time, the general tendency changed towards deregulation, decentralisation and privatisation. The national government dismissed the landscape protection policy and delegated those tasks to the provinces. As the Green Heart is situated in three provinces, this change threatened to reduce the Green Heart to what it had been before, in the 1960s, namely the hinterland of a number of individual cities and towns (Figure 4), each with its own development plans (Kooij, 2010).

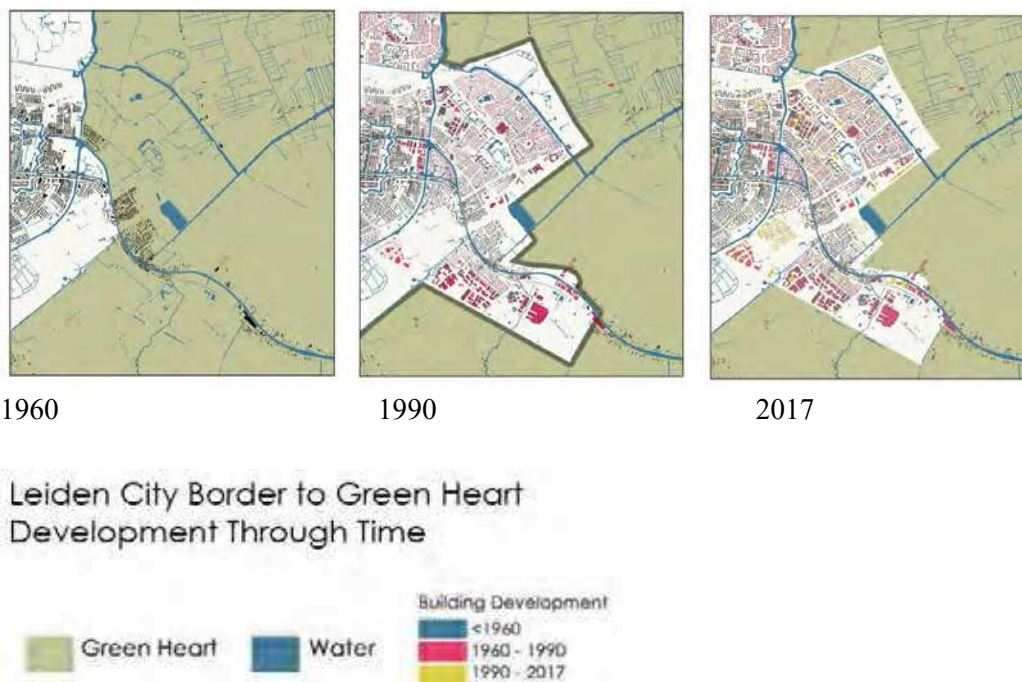


Figure 4. Urban expansion of the eastern side of Leiden, from 1960 to 2017.

Today, the average population density of the Green Heart is around 475 inhabitants per km², certainly not a figure that seems in line with the area's image of a non-urban, open landscape. The rapid growth in the surrounding new towns, however, suggests that the outcome could have been different if there was no policy, at all (Lorzing, 2004).

2.2 Green Heart in the network planning period

Since the beginning of this millennium, spatial policy has been shifting from control and restrictions to a network style of planning. The main consequence of this process was in 2012, when the national government stopped protecting the Green Heart as an important national landscape. The provinces, municipalities and organisations of the Green Heart region had to join forces and find a new way of protecting and promoting the region. This led to the establishment of several local organisations and two regional organisations (i.e. the Green Heart National Landscape and the Green Heart Foundation).

Green Heart National Landscape organisation was formed by the three provinces, five water boards and forty municipalities (Figure 5) with the goal to continue the balanced and coordinated development of the region as whole. The name Green Heart National Landscape was maintained and the Steering

Committee National Landscape Green Heart (*‘Stuurgroep Nationaal Landschap Groene Hart’*) was established (<http://stuurgroepgroenehart.nl/>). The Steering Committee focuses on achieving concrete results with 10 core projects on topics such as settling of peatlands, spatial quality and recreation. The Steering Committee supports the municipalities that take the lead in the promotion; for example, when drawing up plans for the future, generally through knowledge sharing, but sometimes also with financial means.



Figure 5. Organisation of the Steering Committee of the National Landscape Green Heart

The second regional organisation, the Green Heart Foundation (<https://groenehart.info/>), is a platform initiated by local agro-tourism organisations, entrepreneurs and farmers. The foundation has a general management, daily management with seven members, and advisory board consisting of ten members. Together with the private sector, NGOs, residents and local government authorities, the foundation counts 250 active rural entrepreneurs and more than 2,500 ‘friends of the Green Heart’.

The National Landscape Green Heart and the Green Heart Foundation collaborate on several levels, the most important common project being the Quality Atlas (www.kwaliteitsatlas.nl), which monitors the core qualities of the Green Heart. Next to those two regional organisations, there are several local organisations that cover various parts of the region and collaborate on certain subjects, such as nature development, landscape protection and healthy agricultural production (www.wijkenwouden.nl; www.vanade.nl; www.anv-santvoorde.nl; <https://anlvgeestgrond.nl/>). One of those organisations, the Green Clover (*De Groene Klaver*, www.degroeneklaver.nl), is described in the following section.

2.2.1 Local initiatives: The Green Clover Association

The Green Clover is a cooperative of several agricultural entrepreneurs that have joined hands with the aim of promoting their way of farming and nature conservation in the area around the city of Leiden. The cooperative encompasses both farmers, dairy producers and horticulturist. From their perspective, the interests of citizens and entrepreneurs, ecological and economic aspects, food and well-being should be equally represented in the landscape. In other words, their aim is to produce healthy food in a way that also benefits the environment. To this end, the association has engaged in several activities; it promotes green-blue services, nature and biodiversity protection and water management.

For the purposes of this study, we interviewed Theo van Leeuwen, chairman of the Green Clover Association and owner of the cheese producing farm De Vierhuizen in Zoeterwoude. Theo is the fifth generation to run this farm since 1800. We asked him about his farm and the association, his past experience with policy changes, and to synthesise his experience in a few messages that could be beneficial to stakeholders in similar landscape initiatives around the globe, for example, farmers in developing countries. This is what he said:

- There will always be farmers who are pioneers, farmers with a vision of change and progress, they take the initiative and others will follow their example.
- Especially in the beginning, the government should support such visions by providing subsidies and facilities, as well as by creating new supporting regulations.
- Various sectors should be treated equally to avoid one dominating the other.
- Combining several farms in an association has many benefits; it increases the range of products and the size of properties, contributing to the development of the whole region.
- Policy needs continuity, so that it cannot easily change the conditions of farming.
- Agreements need to be formally adopted in the long term, so that government changes, such as after general elections, do not influence the processes of cooperation.

2.3 Lessons learned from the Green Heart

The changes in spatial planning styles have left important marks on the Green Heart region as it is today. The period of hierarchical planning made the Green Heart an important area in the Netherlands. This long-term tradition has led to continuation of the protection of the Green Heart even after the national government decentralised spatial policy. Alternative ways of governance were established and many bottom-up initiatives emerged. This resulted in a complex and non-transparent situation, as many larger and smaller organisations supported by various stakeholders interact in the region. Sometimes they overlap and sometimes they have contradictory goals, but all of them in one or more ways aim to contribute to the economic, social and environmental quality of the Green Heart region.

What we can see from this case is the adaptability and flexibility that both entrepreneurs and the government are showing in times of change. Nowadays, active participation and bottom-up actions became a standard in the Green Heart, with many good examples to learn from.

3 Synergies between spatial planning and ILM

Similarly to spatial planning, ILM has many different approaches, entry points, and organisational models. What these have in common is an emphasis on achieving multiple social, economic and environmental objectives within the same large socio-ecological area (i.e. 'landscape') over the long term. The transition of spatial planning towards a local process that takes place within a network provides more and more opportunities for taking the specific interests of local stakeholders into account and to design plans that are tuned to the needs and circumstances of individual landscapes. With this transformation, responsibility gradually shifts towards regional and local actors. As illustrated in the previous section, stakeholders in the Green Heart have organized themselves in various connected platforms, in order to effectively influence and participate in the planning process.

This section discusses three potential synergies that could benefit both spatial planning and integrated landscape management — integration, spatial context and stakeholders involvement.



3.1 Aiming for integration

The key concept that connects spatial planning and ILM is that of integration. In general, this can be seen as the balancing of social, economic and environmental interests and objectives. That said, integration can be understood in many different ways; examples are the integration of stakeholders, initiatives or disciplines, or the vertical or horizontal integration of sectoral activities. Interviews with several stakeholders, conducted by Van Straalen (2012), showed that the meaning of integration differs between stakeholders involved in the same planning process or at the same planning level, which makes it more difficult for them to cooperate, integrate policies, or implement policies in an integrative manner.

Despite being complicated, planners and practitioners continue their dedication to integrating objectives and using an integrative planning approach in the Netherlands. In the new National Integrated Environmental Policy Strategy (NOVI), integration is also key, bringing spatial planning very close to the integrated landscape management philosophy.



Figure 6: Development Principle for an Integrated Environmental Policy Strategy (NOVI)

(Adapted by PBL from <http://mijnomgevingsvisie.nl/wp-content/uploads/2015/12/Werkwijze-Atelier-ZZ-Omgevingsvisie.jpeg>)

When looking at NOVI development principles, as shown on Figure 6, the ILM process cycle supporting Inclusive Green Growth (Figure 1) can easily be recognised. Spatial planning could potentially provide an important instrument to facilitate integrated landscape management.

3.2 Importance of local spatial context

One of the results from both ILM and SP is that of physical-territorial change of an area and its land use. When looking at the image on the bottom of Figure 1 and the far right image of the Figure 6, the end result of both SP and ILM processes looks very similar. Spatial impact is another common factor to be considered as a possibility to connect.

An example can be seen in integrated landscape development (*Integrale gebiedsontwikkeling*), a concept that has been used in Dutch spatial planning, over the past years. In integrated landscape development, parties such as provinces, water boards and project developers, are looking for ways to reinforce the various functions of a specific area, such as agriculture, nature, water and industry, with the use of various subsidies and regulations. The reason is often an assignment; elaboration of such an assignment can lead to improvement and/or more integral use of the other functions in nature.

How spatial planning affects space can be seen in the case of the Green Heart, described in the previous section. Another, recent and successful example of integrated landscape development is that of ‘Room for the River’, a flood-risk management programme that involves interventions at 30 locations. One of those is the “Room for the Waal” project in Nijmegen. It is one of the largest and most awe-inspiring projects realised within the framework of the Room for the River programme.



Figure 7. ‘Room for the Waal’ project by Nijmegen www.ruimtevoordewaal.nl/en/room-for-the-river-waal

The river Waal near Nijmegen has a sharp bend and a bottleneck. At high water, the river was unable to cope with the large volumes of water, causing flooding events in 1993 and 1995. To prevent this from happening again and in order to protect the city’s inhabitants against the water, the local levee was moved 300 metres inland and a four-kilometre-long secondary channel was dug. Fifty households had to be relocated as a result of these flood-risk management measures. This created an island in the Waal and a unique urban river park with many possibilities for recreation, culture, water and nature (Figure 7). Three new bridges connect the island to Nijmegen-Noord. The work was finished in the spring of 2016.

3.3 Stakeholder involvement

Integrated landscape management and spatial planning can be carried out in various ways and on various levels of participation. In the example of the Green Heart and Room for the River programme, both the national and provincial governments have taken the lead and sought support in the area.

In many other cases, plans are developed by public-private partnerships. The most bottom-up version of stakeholder involvement occurs in situations when local partners take the initiative and develop a plan which is afterwards supported by the government. In all such cases, recognition of each other's interests and the willingness to cooperate are crucial, and new solutions with broader support of the community can emerge.

The integral approach may entail extra costs, but could also result in many additional social benefits. Sometimes, it directly benefits the parties that are bearing the costs, but sometimes it also benefits others, or the benefits only become clear at some point in the future. This unequal distribution of benefits

is a known obstacle, which at times has resulted in desired combinations of functions not being realised. Formal ways of cooperation, negotiation, compensation and alternative financing constructions can sometimes remove this obstacle.

4 Conclusions

Finally, we can conclude that spatial planning is an important instrument that could support the process of integrated landscape management. Both spatial planning and ILM aim at integrated, combined and shared solutions. Integration, spatial impact, regional scale and stakeholders involvement are the factors that can bring ILM and spatial planning closer together. Similar to ILM, spatial planning nowadays involves various stakeholders who can sometimes have different visions and can see integration in many different ways; which is why integration can have various forms. Nevertheless, we should be aware that, although there are several synergies, there are substantial differences between spatial planning and ILM. ILM is a broad concept that acts in raising awareness, improving discussions and building partnerships. Spatial planning in the Netherlands, though, has long tradition and an established position, and it is supported by legal and financial instruments. In the Netherlands, government authorities are still the most important actors in spatial planning, as they play an important role in managing the competing claims on often scarce resources.

Long-term policy is another important issue in the Netherlands, from the point of view of spatial quality, economic stability and awareness rising. As the Green Heart example shows, strong and long-term policy made it possible for some of the Green Heart areas to develop and/or preserve quality. Long-term conservation policy raised the awareness about the value of the area among citizens and entrepreneurs. From the point of view of the local stakeholders, we learned that stable policy makes entrepreneurs feel economically safe.

From this, we can learn that landscape reconstruction, nature conservation and heritage protection, the goals behind the ILM, will only work within a framework of consistent, long-term policy and financial support, on a high administrative level. Creating an enabling environment that provides a level playing field for all stakeholders is considered yet another important role for government authorities on all levels.

These conditions are difficult to create, even in a country that is as developed and economically stable as the Netherlands. Even here, they only lasted for a certain period of time, and the changing political and economic contexts required finding other ways of dealing with competing interests. It is not very likely to expect that such conditions could be provided in economically less developed countries. There, an ILM approach that aims to find shared solutions seems more realistic. This requires local, regional and sometimes international negotiations between many different stakeholders, including farmers, NGOs, indigenous communities and different levels of government. As we can see from the example of the Green Heart, the multi-stakeholder platform Green Heart functions as an additional layer of governance in the management of the region. This example is fully in line with the ILM philosophy and shows the regional benefits of joined forces and shared responsibilities.

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